The Competition of Bad News: Financial Instability & the Animal Spirits

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"October. This is one of the peculiarly dangerous months to speculate in stocks. The others are July, January, September, April, November, May, March, June, December, August, and February."

This quote from Mark Twain pokes fun at financial instability. Indeed, the erratic shifts occurring in the stock markets are, to put it mildly, puzzling, and have always triggered off a controversial, heated, debate. The orthodox paradigm, which is comprised of both neoclassical and neokeynesian schools of thought, has two leanings toward this issue. Most of their disciples endorse the fairy tale of the "efficient market theory", according to which stock prices mirror all the actual, current, information available. As a result, financial instability is the mere reflection of future's instability regarding economic fundamentals themselves. In spite of some occasional overreaction, there is no irrationality involved. Frederic Mishkin is a case in point of such an opinion (Mishkin, 2007). On the contrary, some major mainstream mavericks, such as Akerlof and Shiller, have it that financial instability stems from an irrational exuberance, a faulty thinking (Akerlof & Shiller, 2009, Shiller, 2009). But both views are beside the point: they misconceive of the two rationales underlying the stock markets. They adequately heed only one: that of the long run, people acting so as to reap dividends. Consequently, stock prices are to encompass all expected future earnings with a proper discount rate. This kind of rationale was dubbed "enterprise" by Keynes (Keynes, 1936, 12th chapter). Actually, orthodox economists do not seem to aptly envision the short run rationale, that of capital gains. Capital gains are being dealt with as a result of changes in economic fundamentals between the time of purchase and that of the selling or due to discrepancies or disagreements between individuals. Orthodox economists fail to heed the actual rationale of capital gains, which pertains to the beauty contest metaphor shaped by Keynes, decades ago. He dubbed this kind of rationale "speculation" (Keynes, 1936, 12th chapter).

As Turgot pointed out many centuries ago, there is no such thing as a natural pricing of stocks, bonds or any financial product whatsoever. "All rates differ, because money is being paid for with promises, and if money of all buyers looks the same, the promises of all borrowers do not resemble one another" (quoted in Le Heron, 2005). From all this, it follows that, in order to make capital gains, one has to forecast other people's behavior. That is precisely the meaning of Keynes's famous metaphor. Investors are engrossed in a contest resembling those "newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those which he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view. It is not a case of choosing those which, to the

best of one's judgment, are really the prettiest, nor even those which average opinion genuinely thinks the prettiest. We have reached the third degree where we devote our intelligences to anticipating what average opinion expects the average opinion to be. And there are some, I believe, who practice the fourth, fifth and higher degrees" (Keynes, 1936). Therefore, the rationale underlying short-term expectations has no anchorage in economic reality. But, as there also is a long-term rationale, both might overlap or contradict. The link between these rationales should appear somewhat blurred: the great bulk of the market is short-term oriented, but it is nonetheless obvious that long-term expectations exert influence too, so that the former operators know for a fact and could not fail to heed that the latter strive to forestall real future earnings: Albeit the beauty contest metaphor gets the big picture of financial instability, still, there is some remote anchorage in reality.

As a matter of fact, financial instability can be ascribed to rationality. I would assume that it may have something to do with the notion of "animal spirits", although Keynes shaped this very notion to account for investment decisions. Akerlof and Shiller notwithstanding, "animal spirits" are not tantamount to irrationality. In their book on the topic (Akerlof & Shiller, 2009), they ran the whole gamut of absurd decision making. Instead, I would rather contend that the "animal spirits" pertain to imperfect, efficient, fast decision making.

In the twelfth chapter of his *General Theory*, Keynes referred to the animal spirits of the investors in a somewhat elusive manner. He used the following phrases: "spontaneous urge to action", "spontaneous optimism" (three times), "spontaneous activity", "nerves", "hysteria", "digestions", "reactions to the weather". What should be established at the very outset is that animal spirits make up their minds swiftly, for the occurrences of the word "spontaneous" are numerous. "Nerves", "digestions", "reactions to the weather"… This entire lexical field pertains to the body, as if animal spirits acted according to an embodied knowledge, susceptible of a "delicate balance". Keynes depicted them vividly, with enormous gusto: "human decisions affecting the future, whether personal or political or economic, cannot depend on strict mathematical expectation, since the basis for making such calculations does not exist; and that it is our innate urge to activity which makes the wheels go round, our rational selves choosing between the alternatives as best we are able, calculating where we can, but often falling back for our motive on whim or sentiment or chance".

My attempt at deepening this notion and underscoring the role of animal spirits will hinge around three headings: 1) the breakthroughs in the behavioral economics approaches; 2) the importance of mimicry in the inception of desires and in fast decision-making processes; 3) the affective frame of one's decisions in light of the recent watersheds in neurosciences.

Heuristics, biases and narratives

Behavioral economics has long been fascinated by cognitive patterns that depart from Bayesian calculations and expected utility theory. In this regard, its proponents could be considered as Keynesians, for Keynes had, throughout his academic career, plainly rejected the "mathematical charlatanry" (Keynes, 1921) of those confusing probability calculus with frequency estimates, using the latter as a proxy for expectations. In a letter to Roy Harrod, he

wrote: “Unlike the typical natural science, the material to which [economics] is applied is, in too many respects, not homogeneous through time” (Keynes, 1978).

In everyday life, individuals are poor Bayesians. Their actual cognitive patterns are manifold. Let’s make a survey of behavioral economics’ literature.

True irrationality

True irrationality is encapsulated in absurd conventions, such as the “Mark Twain effect” and the “January effect”. During October, the stock market is said to do poorly. Conversely, during January, the market does well. There is also a well-documented “Monday effect”, as markets usually do poorly on Mondays (Shiller, 2009). Moreover, and generally speaking, when facing situations of which the knowledge is very slender, people tend to rely on preposterous cues. Kahneman & Tversky implemented the following experiment (Kahneman & Tversky, 1974). Participants were to spin a wheel of fortune, numbered from 1 to 100, before answering a tricky question, that of the number of African nations in the UN. As outlandish as it may sound, their answers depended heavily on the random number drawn. But there could be more to it that meets the eye. This experiment could be taken to mean that people usually have a propensity to reckon that when an event follows another one, *then* the latter is caused by the former.

Heuristics

Instead of making decisions on the basis of expected utility theory or Bayesian calculations, people rely on faster, simpler ways of assessing events, what behavioral economics dub “heuristics”. “When confronted with a difficult question people often answer an easier one instead, usually without being aware of the substitution” (Kahneman & Frederik, 2002). Four main heuristics emerge: representativeness, availability, anchors and affect.

“Representativeness is an assessment of the degree of correspondence between a sample and a population, an instance and a category, an act and an actor or, more generally, between an outcome and a model” (Kahneman & Tversky, 1984).

The availability heuristic is the ease with which an image or an argument comes to mind. It is rather unclear whether it has a link to the representativeness heuristic, despite all the lip service paid to convince us of the contrary.

The anchor heuristic is a pattern of assessment. Instead of trying to evaluate stocks out of their intrinsic qualities, people use anchors, that is they start to gauge the similarity of the stock with a standard object of comparison of which they have a good knowledge in order to rate the asset on the basis of that standard value. Once again, this heuristic might be a subset of the representativeness heuristic, for one has to judge the degree of correspondence between a sample and a standard object of comparison. There are two well-known anchors: 1) shareholders value their assets by bearing in mind the PER of similar firms; 2) and by using the last remembered price as an anchor.

“Reliance on affect and emotion is a quicker, easier, and more efficient way to navigate in a complex, uncertain, and sometimes dangerous world” (Slovic & ali., 2002). There is a

tendency to rely on an affect heuristic so that one might judge and act rapidly. We'll return to this topic later.

Prospect theory

Prospect theory consists of three biases: shifting attitudes towards risk, loss aversion and status quo bias or endowment effect.

It appears that decision makers are "risk-averse in the domain of gains, risk-seeking in the domain of losses" (Kahneman & Lovallo, 1993).

Losses loom larger than gains. It entails that, in assessing prospects, individuals do not comply with expected utility theory. For instance, let's consider the following case. Investors have to choose between two lotteries. In the first, they have an even chance of winning 3.000$ or losing 1.000$, and in the second, an even chance of winning 6.000$ or losing 3.900$, they will favor the first prospect, even if the second would have been preferred according to the expected utility theory.

The endowment effect or status quo bias refers to the fact that people appear more reluctant to abandon a given good than to acquire it, i.e. they attach more weight or value to goods they already have. "The main effect of endowment is not to enhance the appeal of the good one owns, only the pain of giving it up" (Kahneman, Knetsch & Thaler, 1991).

Support theory

"Probability judgments are attached not to events but to description of events. […] The support of a summary representation of an implicit hypothesis is generally less than the support of its exclusive components. Both memory and attention may contribute to the effect. Unpacking a category (e.g., death from an unnatural cause) into its components (e.g., homicide, fatal car accidents, drowning) might remind people of possibilities that would not have been considered otherwise" (Koehler & Tversky, 1994). In fact, to describe is to make sense. Thus, no wonder that belief should precede quantitative preference (Fox & Tversky, 1998), for the latter is too fuzzy and uncertain to enable somebody to make a sound judgment on the basis of it. Hence, one might rather assert that description *is* the event. Which leads us to our need to rely on narratives.

Narratives

Assessing each and every event is too stern and intractable a task. One easier, quicker way of rating things is to enroll them in a narrative: the plot is already there, and each new event cannot but confirm it, no matter how contradictory to one another these new facts could appear to be.

First and foremost, people tend to show overconfidence when they invest money in markets. This is a coarse narrative, because they deem that eventually, at the end of the story, they are bound to prevail. Nonetheless, when a stampede is lasting, the narrative can be reversed. "Negative feelings foster a more detail-oriented processing style" (Schwartz, 2002): shareholders tend to pay more attention to details when the economic mood dampens. Facts that were ignored during booms are excessively heeded during downturns.

As a whole, many experiments have shown that events are more easily recalled when they comprise a narrative, for narratives are a more natural way of computing events than any analytical or mathematical reasoning (Akerlof & Shiller, 2009).

Two systems of reasoning

The existence of two systems of reasoning has long been a philosophical truism. Beside what mainstream economists call "rationality", there is an automatic, intuitive and associative way of reasoning (Sloman, 2002) that could be said to resemble Keynes's animal spirits. The function of the former is to monitor the latter (Kahneman, 2007).

Given all these outcomes, many conclusions can be drawn. Above all, the heuristics, biases, prospect and support theories are very much in tune with Keynes's views on probability and decision making. One might assert that they enhance the concept of animal spirits. Nevertheless, behavioral economists gloss over Keynes's thought in two respects. They disregard his warnings that probability cannot be confused with statistical frequencies and his analysis on the "weight of argument". Secondly, in the stock market, individuals seldom use rationality, which does not mean that they behave like fools. Bearers have a natural propensity to surmise that if an event is followed by another, then the former is the cause of the latter. Thirdly, during an economic slump, shareholders play down good news, due to their reliance on a prevalent gloomy narrative. Fourthly, because of the fact that losses loom larger than gains, when the market is jittery, the bearers are overly cautious.

Desires' momentum and mimetic rationality

The beauty contest rationale seems to imply mimicry. As with fashion, people have to be the first to imitate the others, that is successfully forestall the tone of the market, be the trailblazers in the realm of mimesis. The motto would be: "behave like others, but just before them". In this regard, mainstream economic analysis lacks depth, for it does not scrutinize the momentum of desires; individuals are endowed with preferences and knowledge, considered as mathematical tools to deal with events. Desires are kept in a black box. Conversely, Keynes's animal spirits are said to rest on "chance", "whim" and "urges", all the gut feelings related to desires (Keynes, 1936).

If people have needs, they have no desire of their own. René Girard takes a firm stand against what he calls "romantic delusion", that of the autonomy of the self (Girard, 1999). Nietzsche shared quite the same view; he kept on castigating what he dubbed "the superstition of the self". Individuals are incomplete; this incompleteness is felt like a curse and one's most dire need is to fill up one's self by unconsciously imitating others. Not all other man or woman, of course, but some of them, whose features or characteristics are subjectively seen as salient. We may choose a tie to wear, a woman to love, a car to drive and a painting to cherish, but desire does not come from an object, nor does it originate from the self; it is what binds an individual with another individual, whom we unconsciously wish to resemble. Desiring something is not a matter of having more or less, but of being more or less. René Girard speaks of triangular desires (Girard, 1999). The object is not what matters; it is bound to be transient and fragile, for it is a mere mean to be more, to gain completeness. Thus, desire is

susceptible of dramatic reversals. The younger the individual, the more prone to imitate. But, as long as a person desires, i.e. is alive, he is to pursue this quest. Desire is not a mere impulse; it can come in the shape of words or reasoning.

It is abundantly clear that the individual one wishes to resemble is not bound to be a real person; it can be a fictitious model, stemming from novels or traditional, lofty, ideals for instance. When the mediator of desire is close enough (and this closeness is not just a question of space and time) to be a hurdle, the mediation is dubbed "internal". When the mediator is out of reach, whether because he is fictitious or dead or from a very different social class, the mediation is "external".

In the markets, the mediation is mostly internal. In order to make capital gains, one has to forecast and act intuitively, that is swiftly. Rationality cannot be severed from desires, for it is rational to desire what others desire: it triggers the momentum of desire well-depicted by René Girard. As André Orléan put it, the kind of rationality involved, here, is self-referential (Orléan, 2009). Yet, resembling the successful businessman is tantamount to be hampered by him: he is as ominous as he is tantalizing. Each new capital gain opportunity rekindles enmities and rivalries, for the market impetus is crystallized into the same stocks. But this momentum is unstable and flimsy, for completeness cannot be achieved. Moreover, the more valued the stock, the more appealing he becomes, with the exception of the clout of shareholders acting according to the "enterprise rationale". We should bear in mind that the object of desire not only is the stock itself, but the convention through which it is rated.

Like diseases, desires are contagious. Internal mediation, which is rife in the markets, is a double-sided phenomenon: the model is also an obstacle. In turn, the sight of this elicited desire strengthens the mediator's own desire. Desires are self-reinforcing. Consequently, there is no denying that, with time, grows the tension. There is an underlying violence in each decision: the scarcity of stocks makes it impossible for everyone to possess them. Desire is an unquenchable thirst: mimetic rivalry is always fuelled in a dramatic escalation (Girard, 2001). Then comes the time when violence has to be discharged and discarded because it jeopardizes the whole market: some assets have to be sacrificed so that order may be restored. Literally, some stocks suddenly become scapegoats and this motion has a high probability of enticing a crash. These stocks need not be unsound; they have to be somehow "innocent", that is be a case in point, a typical example of what the current, prevalent conventions value most. Hence the backlash against the banks in the present crisis. Even in the aftermath of the banking sector recovery, the stocks are still undervalued. The great bulk of financial institutions are very profitable again, but the stocks are three or four times less valued than before the crash flared up. For example, Societe Generale was, at its peak, valued at 140 euros. It is now worth around 45 euros. As for Natixis, it dwindled from 15 euros to less than 1 euro before ratcheting up at around 4 euros in a three-year time.

However stimulating and exhilarating, the analyses of René Girard are not deprived of the least loophole. One cannot contend that they encompass all human behavior, owing to the infinite regression that it entails. If each and every desire is no "uncaused cause" or does not pertain to a person's autonomy or his irreducible peculiarity, that is, if each and every desire is given rise to by another individual, then one should ask for the original sin: where does the

very first desire come from? Still, desire's riddle is not wholly unraveled. Nonetheless, René Girard's analyses are as challenging as stimulating and could be said to account for the bulk of market momentum.

Beyond body and mind: animal spirits and the neurosciences

At every moment, two market rationales compete: enterprise and speculation. The former is more long-term oriented, the latter is more short-term oriented. A shareholder might be right according to the former, but wrong on the basis of the latter. That's why Keynes once wrote that one should be wrong with the market instead of being right against it. Thus, even if we are intent on reaping dividends, that is we are prone to look at the economic basics, we can't help but heed speculators' conventions or worldviews, for it would be foolish to buy now an overvalued asset. Hence the speculation rationale is superior to its enterprise counterpart, however entangled both are: the former can gloss over the latter, but the latter is bound to pay attention to the former.

Short-term versus long-term expectations patterns

Recent breakthroughs in the fields of neurosciences are all grist to this mill. Antonio Damasio's famous experiments have shown that short run and long run expectations use different cognitive patterns (Damasio, 2005). It is hard evidence that speculation and enterprise comprise two diverging rationales. This point is of broader relevance. It shows how tricky it is to properly anticipate the future tone of the market, owing to the different cognitive patterns that one has to have full command of.

The intelligence of emotions

Conventional wisdom has it that emotions are no rational. Besides, they are often said to obscure judgment. But this was not Keynes's view, remember his appraisal of the animal spirits. Evidently, rationality per se, the system 2 of behavioral economics, prompts more relevant actions for it demands more time but, in many situations, emotions elicit efficient, more accurate responses.

Emotions serve homeostatic purposes. Their raison d'être lie in the warnings and news about one's body that they send to the brain (Vincent, 2002). They are automatically prompted by the perception of some appropriate events, due to some "somatic markers" (Damasio, 2005). Survival: this is all what this is about. But perceptions are not passive, for "Each life rests on expectations", said Husserl. The border between life and death is tiny and fuzzy: it is a matter of a fraction of a second. Natural selection fostered quick, bodily expectations in order to be able to tackle every threat. That's why there is no perception stripped of any judgmental interference or arbitrary shape. "Action is already in perception" (Berthoz & Petit, 2006). When perceiving things, our brain always has a propensity to prepare the continuation. The sheer perception time of the same image varies according to the previous images: if the last one continues the others, it is quicker. Every perception depends on the motion of some part of the body, whether the eyes, the tongue or the hands. Before moving, the brain sends what neurologists call an "efferent copy" of the coming motion. This explains, for example, why

the image of the world does not twitch over our retina when we look round. Thus, there isn't something like an internal interpretation of external events. "Reality itself is a widespread anticipatory construction" (Berthoz & Petit, 2006).

As Damasio puts it, in the long history of evolution, consciousness came last (Damasio, 2010). Animals and men's animal spirits had to cope with their environment thanks to automatic cognitive patterns. Let's call "intuition" the judgmental or appraisal part of each perception. We are only aware of the outcomes, not of the process. While in the markets, bearers have to rely on their intuitions, especially when they are to abide by the speculation rationale. Even the consciousness of decision is preceded by a peculiar state called "preparation readiness" (Libet, 1983, Jeannerod, 2009). Consciousness, on which rationality per se so heavily depends, is only a matter of time: neurosciences experiments have shown that an automatic response is first triggered and only then is the action relayed to consciousness. Moreover, Damasio and other scientists' crews have proved that expectations have to be buttressed by emotions (Damasio, 2005, Schmidt, 2010). The inability to feel results in being incapable of proper expectations, even when the rational faculties are not impaired. This is a decisive blow against mainstream economics.

Social animal spirits

René Girard's analyses have recently been underpinned by neurosciences headways. Scientists discovered the existence of "mirror neuron" (Jeannerod, 2009, Schmidt, 2010). When we see an act accomplished by another individual and provided that this act is familiar to us, our brain receives it directly, without interpretation, as if we were the actual subject of that act. In other ways, we naturally and automatically tend to imitate others. After all, education consists in part of mimicking the teacher. This should not be taken to mean that there is no alternative but to imitate: the frontal lobe is aiming at thwarting the sway of the mirror neuron (Jeannerod, 2009). The alleged herd behavior that occurs in markets originates in part from this natural tendency.

Animal spirits in the real world

First and foremost, let's notice the links between all these discoveries. Neurosciences watersheds buttress psychologists' plea for two systems of reasoning, give depth and enrich the affect heuristic and back up René Girard's stirring analysis of mimesis.

Now, let's turn to the real world and see if this theoretical framework fits. What should be established at the very outset is that one might assume that markets fluctuations are, by far, more due to the speculation motive than usual, because of the massive capital flight that occurred previously. Indeed, the return to high rates of profitability, in a more uncertain environment though, leads us to sensibly suppose that the weight of the enterprise motive has increased compared with that of the speculation motive. Hence, the markets are more prone to erratic moves. By the same token, it enhances the importance of system 1 reasoning. The discrepancy between short-term and long-term expectations evidenced by neurosciences is all the more dramatic.

Each day, conflicting news crop up. But, owing to the Prospect theory, losses loom larger than gains. As a result, bad news outweighs the good one. For instance, on the first October, various statistics were released in the United States. Most of them were good. The consumers had spent more money than expected, and the construction sector was doing above expectations, but not the industrial sector. Consequently, the Paris index drooped.

When the tone of the market is gloomy, according to the Affect Heuristic, more attention is paid to details. Rarely have the weekly unemployment figures in the United States been so vital and so scrutinized.

When conflicting news is released, bearers have to percolate and sort this news out. If we are to believe the Representativeness Heuristic, the tone of the market will depend heavily on news about representative securities. For example, on the 16th July, although both Bank of America and General Electric had announced net profits above expectations, the market dipped because of Citigroup, deemed as more involved and more representative of the subprime crisis.

For months, there has been a prevalent narrative: the famous alleged "public-debt burden". The markets suddenly feared that Greece, Ireland and Spain could not be able to refund their huge debts. But there might be more to it that meets the eye. The speculative onslaughts were too massive, and the victims were hailed and praised for their sound economic fundamentals not so long ago, especially Ireland and Spain. René Girard helps us understand why. A tremendous mimetic move took place, and those three countries were among the scapegoats of the subprime crisis. Added to this, the narrative of the "public-debt burden" achieved to convince speculators that these countries would not recover, whatever could come to pass. Indeed, on the 15th July, after weeks of dreadful alarms, Greece successfully launched its new bonds. This news was greeted by a 1.41% fall in the Paris index: it didn't matter, because Greece is bound to fail, goes the story.

At last, one might notice double standards. During the Greenspan era, each Federal Reserve intervention was saluted by the market. Now, the same kind of intervention raises doubts and anxiety. For example, on 10th August and 22nd September, the Federal Reserve decided to keep its base rates at an all-time low level and to implement an open market expansionary policy in order to fuel the economy: instead of going bull, because it could imply that economy would recover, it reinforced pessimistic forecasts. Other implications come into play: there might also be a double bind. Had the FED not intervened, the markets would have blamed it for its immobility. The FED intervened: it fostered pessimistic forecasts, and the markets dipped all the same.

Conclusion

The discrepancy between the enterprise and the speculation rationales, combined with the animal spirits could be said to account for financial instability. Such instability is not due to sheer irrationality, but to conflicting forms of rationality. In order to be good speculators, individuals have to rely on their animal spirits, that is to find a quick and efficient way of reasoning and assessing new events that depart from mathematical or probability calculus.

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